

**To:** McCabe, Greg[McCabe.Gregory@epa.gov]  
**Cc:** McCoy, Erin[McCoy.Erin@epa.gov]; Williams, Mike[Mike.Williams@tetrattech.com]; Weise, Ann[Ann.Weise@tetrattech.com]  
**From:** Homer, David  
**Sent:** Thur 11/17/2016 7:27:44 PM  
**Subject:** RE: default PEF value for Lincoln, NE  
RAGS D Workbook\_RME\_11172016.xlsx

Greg,

I found the problem with the inhalation from groundwater domestic use for the resident. It was not in the exposure assumption, but the TCE groundwater concentration was incorrect. We check the equations by putting the RSL tap water value in as the EPC and we forgot to remove that concentration for TCE. I also found an incorrect conversion factor in the NC ingestion equations. That has been corrected.

Just to clarify, my previous reference to the RAGS D Table 4s, was the Table 4 series that is in the Excel workbook. Those tables contain all the exposure factors used in the calculations. I did not mean the blank tables on the EPA website. Sorry for the confusion. I have attached the updated workbook for your review.

Give me a call and I will be happy to discuss all this.

David

**David Homer, PhD | Senior Environmental Scientist**

Tetra Tech Inc.  
Phone: 816.412.1762 Cell: 913.645.0453  
Fax: 816.410.1748



Think Green - Not every email needs to be printed

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



**From:** McCabe, Greg [mailto:McCabe.Gregory@epa.gov]

**Sent:** Thursday, November 17, 2016 9:56 AM  
**To:** Homer, David <David.Homer@tetrattech.com>  
**Cc:** McCoy, Erin <McCoy.Erin@epa.gov>  
**Subject:** RE: default PEF value for Lincoln, NE

David -

Yes, that is the website I was at. And I had the same problem. I can open the blank forms, but not the example tables. In an earlier email, you noted that you had used the default values from the RAGS D tables in your spreadsheet. To my knowledge, the blank forms don't contain any default values. I assumed that they must be in the example tables, that I'm not able to open. In order to use the RSL calculator, the user has to supply a number of values, e.g., depth to contamination, etc., etc. I was hoping to find the values you assumed in the example tables, but if you couldn't open them either, I assume the values you used in the RSL calculator didn't come from the example tables. When I attempted to develop a risk estimate for TCE, for example, in the inhalation pathway using the RSL calculator, I wasn't able to duplicate the estimates that you came up with using that calculator. In the tables I've reviewed so far, it has been the inhalation pathway that has been most problematic. In order for me to adequately evaluate the risk assessment, I need to be able to duplicate the risk estimates that were developed. So whatever information/default/user supplied values you used that could help me do that, it would be much appreciated.

Greg

**From:** Homer, David [<mailto:David.Homer@tetrattech.com>]  
**Sent:** Thursday, November 17, 2016 9:36 AM  
**To:** McCabe, Greg <[McCabe.Gregory@epa.gov](mailto:McCabe.Gregory@epa.gov)>  
**Subject:** RE: default PEF value for Lincoln, NE

Greg,

I assume that you are at the website below

<https://www.epa.gov/risk/risk-assessment-guidance-superfund-rags-part-d>

I was able to open the blank forms which are in excel, but most of the examples are in a Word Perfect format, which I could not open.

David

**David Homer, PhD | Senior Environmental Scientist**

Tetra Tech Inc.  
Phone: 816.412.1762 Cell: 913.645.0453  
Fax: 816.410.1748



Think Green - Not every email needs to be printed

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



**From:** McCabe, Greg [<mailto:McCabe.Gregory@epa.gov>]  
**Sent:** Thursday, November 17, 2016 9:28 AM  
**To:** Homer, David <[David.Homer@tetrattech.com](mailto:David.Homer@tetrattech.com)>  
**Cc:** McCoy, Erin <[McCoy.Erin@epa.gov](mailto:McCoy.Erin@epa.gov)>  
**Subject:** RE: default PEF value for Lincoln, NE

Quick question, not directly related to your spreadsheet. Did you have any difficulty opening the RAGS Part D tables from EPA's website? I tried to take a quick peek at them this morning but wasn't able to open them. I'll try again later. I know EPA revised their website earlier this year, and many of the previous links no longer work.

**From:** Homer, David [<mailto:David.Homer@tetrattech.com>]  
**Sent:** Wednesday, November 16, 2016 10:00 AM  
**To:** McCabe, Greg <[McCabe.Gregory@epa.gov](mailto:McCabe.Gregory@epa.gov)>  
**Cc:** McCoy, Erin <[McCoy.Erin@epa.gov](mailto:McCoy.Erin@epa.gov)>  
**Subject:** RE: default PEF value for Lincoln, NE

Greg,

Here is the spreadsheet. Let me know if you have any questions.

David

**David Homer, PhD | Senior Environmental Scientist**

Tetra Tech Inc.  
Phone: 816.412.1762 Cell: 913.645.0453  
Fax: 816.410.1748



Think Green - Not every email needs to be printed

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



**From:** McCabe, Greg [<mailto:McCabe.Gregory@epa.gov>]  
**Sent:** Wednesday, November 16, 2016 9:23 AM  
**To:** Homer, David <[David.Homer@tetrattech.com](mailto:David.Homer@tetrattech.com)>  
**Cc:** McCoy, Erin <[McCoy.Erin@epa.gov](mailto:McCoy.Erin@epa.gov)>  
**Subject:** RE: default PEF value for Lincoln, NE

David -

If you wouldn't mind sending me the spreadsheet, that would likely help to shorten my review time. Thanks.

Greg

**From:** Homer, David [<mailto:David.Homer@tetrattech.com>]  
**Sent:** Tuesday, November 15, 2016 3:12 PM

**To:** McCabe, Greg <McCabe.Gregory@epa.gov>  
**Cc:** McCoy, Erin <McCoy.Erin@epa.gov>  
**Subject:** RE: default PEF value for Lincoln, NE

Greg,

The assumptions we used in the inhalation calculations are found in the RAGS D Tables 4 Series. If it would be helpful, I can send the Excel spreadsheet that we used.

David

*David Homer, PhD | Senior Environmental Scientist*

Tetra Tech Inc.  
Phone: 816.412.1762 Cell: 913.645.0453  
Fax: 816.410.1748



Think Green - Not every email needs to be printed

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



**From:** McCabe, Greg [mailto:McCabe.Gregory@epa.gov]  
**Sent:** Tuesday, November 15, 2016 3:03 PM  
**To:** Homer, David <David.Homer@tetrattech.com>  
**Cc:** McCoy, Erin <McCoy.Erin@epa.gov>  
**Subject:** RE: default PEF value for Lincoln, NE

Thanks for the response. I am using the default PEF value for Lincoln. But I'm still not able to duplicate the inhalation risk values that are contained in Table 7.1. Perhaps if you told me what the more important values you used in the calculator would help (e.g., depth, VF). I'm simply trying to duplicate the risk values you came up with, in order to verify as part of my review that the risk values in the assessment were calculated correctly. If you have any other observations, or suggestions, I'd be happy to consider them.

**From:** Homer, David [<mailto:David.Homer@tetrattech.com>]  
**Sent:** Tuesday, November 15, 2016 12:48 PM  
**To:** McCabe, Greg <[McCabe.Gregory@epa.gov](mailto:McCabe.Gregory@epa.gov)>  
**Cc:** McCoy, Erin <[McCoy.Erin@epa.gov](mailto:McCoy.Erin@epa.gov)>; Williams, Mike <[Mike.Williams@tetrattech.com](mailto:Mike.Williams@tetrattech.com)>; Bollinger, Karen <[Karen.Bollinger@tetrattech.com](mailto:Karen.Bollinger@tetrattech.com)>  
**Subject:** RE: default PEF value for Lincoln, NE

Greg,

We used the RSL calculator for residents to determine the PEF; it has the default dispersion constant values needed to calculate the PEF for Lincoln, NE, which is the closest city within the climate region for Des Moines. Let me know if you have any other questions.

David

*David Homer, PhD | Senior Environmental Scientist*

Tetra Tech Inc.  
Phone: 816.412.1762 Cell: 913.645.0453  
Fax: 816.410.1748



Think Green - Not every email needs to be printed

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.



**From:** Bollinger, Karen  
**Sent:** Tuesday, November 15, 2016 12:23 PM  
**To:** McCabe, Greg <[McCabe.Gregory@epa.gov](mailto:McCabe.Gregory@epa.gov)>  
**Cc:** McCoy, Erin <[McCoy.Erin@epa.gov](mailto:McCoy.Erin@epa.gov)>; Homer, David <[David.Homer@tetrattech.com](mailto:David.Homer@tetrattech.com)>; Williams, Mike <[Mike.Williams@tetrattech.com](mailto:Mike.Williams@tetrattech.com)>  
**Subject:** RE: default PEF value for Lincoln, NE

Hi Greg,

I'm going to forward your email to David Homer and Mike Williams. They'll be able to answer your question.

Thanks,

**Karen Bollinger** | Contract Administrator

415 Oak Street | Kansas City, Missouri 64106 | [www.tetrattech.com](http://www.tetrattech.com)  
Direct: 816.412.1743 | Main: 816.412.1741 | Fax: 816.410.1748

[karen.bollinger@tetrattech.com](mailto:karen.bollinger@tetrattech.com)

**Tetra Tech** | **Complex World, Clear Solutions™**

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

**From:** McCabe, Greg [<mailto:McCabe.Gregory@epa.gov>]  
**Sent:** Tuesday, November 15, 2016 12:18 PM  
**To:** Bollinger, Karen <[Karen.Bollinger@tetrattech.com](mailto:Karen.Bollinger@tetrattech.com)>  
**Cc:** McCoy, Erin <[McCoy.Erin@epa.gov](mailto:McCoy.Erin@epa.gov)>  
**Subject:** default PEF value for Lincoln, NE

Karen –

I'm the EPA R7 risk assessor that's looking at the DICO risk assessment for Erin McCoy. Erin's out today. I have a quick question. In the footnotes for Table 4.2.1, on page 6 of 49, footnote 8 cites the "default PEF value for Lincoln, Nebraska". I am not aware of any such default value. Could you tell me where to find it? Or if it was calculated, could you tell me what equation and default values were used? Thanks.

Greg McCabe